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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,883	04/20/2004	Michael Paris	A04P3007-US1	5630

24473 7590 10/13/2005

STEVEN M MITCHELL  
PACESETTER INC  
701 EAST EVELYN AVENUE  
SUNNYVALE, CA 94086

EXAMINER
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REIDEL, JESSICA L

ART UNIT	PAPER NUMBER
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3766

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/828,883

Applicant(s)

PARIS, MICHAEL

Examiner

Jessica L. Reidel

Art Unit

3766

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 15 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6 and 13 is/are rejected.
- 7) ☐ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 04/20/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Claims 1-6 in the reply filed on September 15, 2005 is acknowledged.

### ***Claim Objections***

2. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1, step (c) recites the limitations of identifying a heart rate as the maximum observed heart rate when the following conditions occur (i) the activity level exceeds an activity threshold. (ii) a heart rate measurement is greater than a stored heart rate measurement, and (iii) a difference between the heart rate measurement and the stored heart rate measurement does not exceed a predetermined threshold.. For steps (c) (i-iii) of Claim 1, it is inherent that each step involves the comparisons recited in Claim 5.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5-6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ternes (U.S. 2005/0065443) in view of Pless et al. (U.S. 4,872,459) (herein Pless). Ternes discloses an implantable medical device 102 that monitors a changing heart rate of a patient and produces heart rate measurements (see Ternes Fig. 7, page 4, paragraph 34 and page 5, paragraphs 42-43), identifies an onset of an exercise episode when at least one of the following two conditions occur: at least one heart rate measurement exceeds a first heart rate measurement threshold R1 and/or at least one sensor output, read as an activity level, exceeds a first activity level threshold S1, identifies an end of an exercise episode when at least one of the following two conditions occur: at least one heart rate measurement falls below a second heart rate measurement threshold R2 and/or at least one sensor output, read as an activity level, falls below a second activity level threshold S2 (see Ternes page 3, paragraphs 27-28), and uses the exercise episode and end of the exercise episode to determine a maximum observed heart rate (see Ternes page 4, paragraph 34). It is inherent that the onset of an exercise episode and the end of an exercise episode comprise identifying heart rate since heart rate versus time is plotted during the entire episode via display 226 (see Ternes Fig. 7 and page 5, paragraph 43).

Ternes discloses the claimed invention except that the maximum observed heart rate is not determined when a third condition of “a difference between the heart rate measurement and the stored heart rate measurement not exceeding a predetermined threshold” occurs. Pless, however, discloses a heart rate detecting implantable medical device and teaches that a sensed event, read as a sensed HR, is determined to be stable if the difference between the period of the detected high rate event, read as a sensed HR, and a computed average, read as a stored heart rate, is less than a predefined maximum interval, read as a predetermined threshold (see Pless

Abstract and column 18, lines 1-10). Therefore it would have been obvious to modify the method of Ternes as taught by Pless to use a stable sensed HR in order to increase the accuracy of the maximum heart rate determination.

5. As to Claim 6, Ternes also discloses that the device is capable of detecting one or more of the following: head rate intensity and percent oxygen consumption reserve (see Ternes page 2, paragraph 23, page 4, paragraphs 34-39 and page 5, paragraphs 41).

#### *Allowable Subject Matter*

6. Claims 2-4 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kieval et al. (U.S. 6,529,771) discloses an implantable medical device that determines activity levels and heart rate and from a combination of these produces a value for a heart rate activity coefficient.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Reidel whose telephone number is (571) 272-2129. The examiner can normally be reached on Mon-Thurs 7-4:30 and every other Friday 7-3:30.

Art Unit: 3766

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Robert E. Pezzuto  
Supervisory Patent Examiner  
Art Unit 3766

Jessica L. Reidel 